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EXAMINER	
MENBERU, BENIYAM	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/966,771	MASAO ET AL.	
	Examiner	Art Unit	
	Beniyam Menberu	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

On page 31, line 3, "PC2" should be "PC 2".

On page 31, line 19, "CPU 2" should be "CPU 301".

On page 35, lines 9-10, the step s303 in Figure 7 is missing.

On page 37, lines 23-25, the step s403 in Figure 9 is missing.

On page 38, lines 4-6, the step s408 in Figure 10 is missing.

On page 40, lines 16-18, the step s503 in Figure 11 is missing.

On page 40, line 24, "s505 and s506" should be "s505 and s507".

Appropriate correction is required.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: reference 210 in Figure 2; step s203 in Figure 6; step s503 in Figure 11; step s516 in Figure 12. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of

an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 21 and 37 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. 6757081 to Fan et al.

Regarding claims 21 and 37, Fan et al disclose an information processing apparatus/method connected to an image input apparatus which is capable of executing predetermined image processing on input image data and outputting the processed image data, the information processing apparatus comprising:

storage means for storing image data output from the image input apparatus(column 6, lines 11-19);

instruction input means for inputting setting information for image processing according to an instruction from an operator (column 6, lines 21-28; Figure 1, reference 38);

image processing means for executing image processing on the image data stored in said storage means based on the setting information input by said instruction input means (column 7, lines 54-62); and

transmitting means for transmitting the setting information used for the image processing by said image processing means, to the image input apparatus (Figure 1, reference 34; column 8, lines 1-4).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 35, 36, 38, 39, 40, 41, 42, 43, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6757081 to Fan et al in view of U.S. Patent No. 6327056 to Tsai et al.

Regarding claims 1, 32, and 43, Fan et al disclose an information processing apparatus/method/program (column 6, lines 1-10, lines 42-60; column 7, lines 5-8) connected to an image input apparatus which is capable of executing predetermined

image processing on input image data and outputting the processed image data, the information processing apparatus comprising:

first storage means for storing image data output from the image input apparatus (column 6, lines 11-20; lines 33-36; Figure 1, reference 40, 32, 34);

instruction input means for inputting setting information for image processing according to an instruction from an operator (column 6, lines 21-28; Figure 1, reference 38); and image processing means for executing image processing, on the image data stored in said first storage means based on the setting information input by said instruction input means (column 7, lines 54-67; column 8, lines 1-4). However Fan et al does not disclose that image processing can be executed by the image input apparatus.

Tsai et al disclose that image processing can be executed by the image input apparatus and the host which reads on image processing means (column 3, lines 24-31).

Fan et al and Tsai et al are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the image processing system of Tsai et al with the system of Fan et al to implement image processing within the scanner.

The motivation to combine the reference is clear because by processing the image inside the scanner, the work load on the image processing device can be reduced when the image processing apparatus is busy.

Regarding claim 2, Fan et al in view of Tsai et al teaches all the limitations of claim 1. Further Fan et al in view of Tsai et al disclose an information processing apparatus according to claim 1, wherein the image input apparatus is a scanner apparatus (Fan et al: column 6, lines 23-26) having an image processing section that executes predetermined image processing on image data input by reading an image (Tsai et al: column 3, lines 24-31), and wherein said first storage means stores image data transmitted from said scanner apparatus (Fan et al: column 6, lines 11-20; Figure 1, reference 40, 32, 34).

Regarding claim 3, Fan et al in view of Tsai et al teaches all the limitations of claim 1. Further Fan et al in view of Tsai et al disclose an information processing apparatus according to claim 2, wherein said image processing section of said scanner apparatus executes image processing related to image correction, and said image processing means executes image correction that can be executed by said image processing section of said scanner apparatus (Tsai et al: column 3, lines 24-31).

Regarding claim 5, Fan et al in view of Tsai et al teaches all the limitations of claim 2. Further Fan et al in view of Tsai et al disclose an information processing apparatus according to claim 2, wherein said scanner apparatus further includes an image input section that feeds an original and inputs image data by reading an image from the fed original (Fan et al: column 6, lines 33-40).

Regarding claim 6, Fan et al in view of Tsai et al teaches all the limitations of claim 1. Further Fan et al in view of Tsai et al disclose an information processing apparatus according to claim 1, further comprising display means for displaying the

image data processed by said image processing means (Fan et al: column 6, lines 11-21; column 7, lines 64-67).

Regarding claim 7, Fan et al in view of Tsai et al teaches all the limitations of claim 6. Further Fan et al in view of Tsai et al disclose an information processing apparatus according to claim 6, wherein said image processing means executes image processing on image data temporarily stored in said storage means and said display means displays the processed image data, before said instruction input means inputs set values (Fan et al: Figure 5, reference 72, 74, 76; column 7, lines 61-67).

Regarding claim 8, Fan et al in view of Tsai et al teaches all the limitations of claim 6. Further Fan et al in view of Tsai et al disclose an information processing apparatus according to claim 1, further comprising second storage means for storing the processed image data after said image processing means has executed image processing based on the setting information (Fan et al: column 6, lines 60-62; column 7, lines 64-67).

Regarding claim 10, Fan et al in view of Tsai et al teaches all the limitations of claim 1. Further Tsai et al disclose an information processing apparatus according to claim 1, further comprising selecting means for selecting either a first mode in which the image input apparatus executes the image processing or a second mode in which the information processing apparatus executes the image processing (Tsai et al: column 3, lines 27-32; lines 59-65), according to an instruction input by the operator (The system of Fan et al can be configured to provide user option to select where the image

processing can be performed since Tsai et al provides for two modes of image processing.).

Regarding claim 11, Fan et al in view of Tsai et al teach all the limitations of claim 1. Further Fan et al in view of Tsai et al disclose an information processing apparatus according to claim 1, wherein the image input apparatus is a scanner apparatus (Fan et al: Figure 1, reference 40), and wherein the information processing apparatus is a personal computer connected to said scanner apparatus via a communication cable (Fan et al: Figure 1, reference 32, 34).

Regarding claim 12, Fan et al in view of Tsai et al teach all the limitations of claim 1. Further Fan et al in view of Tsai et al disclose an information processing apparatus according to claim 1, further comprising transmitting means for transmitting the setting information used for the image processing by said image processing means, to the image input apparatus (Fan et al: column 8, lines 1-5; column 9, lines 51-55).

Regarding claim 13, Fan et al in view of Tsai et al teach all the limitations of claim 12. Further Fan et al in view of Tsai et al disclose an information processing apparatus according to claim 12, wherein said transmitting means transmits the setting information to the image input apparatus (Fan et al: Figure 5, reference 78; column 8, lines 1-5; column 9, lines 51-55) after first image data stored in said first storage means has been processed by said image processing means (Fan et al: Figure 5, reference 72, 78; 78 follows step 72 where image is stored.).

Regarding claim 14, Fan et al in view of Tsai et al teach all the limitations of claim 13. Further Fan et al in view of Tsai et al disclose an information processing

apparatus according to claim 13, further comprising display means for displaying the image data processed by said image processing means (Fan et al: column 7, lines 64-67;Figure 1, reference 36).

Regarding claim 15, Fan et al in view of Tsai et al teach all the limitations of claim 14. Further Fan et al in view of Tsai et al disclose an information processing apparatus according to claim 14, wherein the image input apparatus is a scanner apparatus (Fan et al: column 6, lines 23-26) having an image processing section that executes predetermined image processing on image data input by reading an image (Tsai et al: column 3, lines 24-31), and wherein said first storage means stores image data transmitted from said scanner apparatus (Fan et al: column 6, lines 11-20; Figure 1, reference 40, 32, 34).

Regarding claim 16, Fan et al in view of Tsai et al teach all the limitations of claim 14. Further Fan et al in view of Tsai et al disclose an information processing apparatus according to claim 15, wherein said image processing section of said scanner apparatus executes image processing related to image correction based on the setting information transmitted from said transmitting means (Fan et al: column 8, lines 1-5; column 9, lines 51-55), and said image processing means executes image correction that can be executed by said image processing section of said scanner apparatus (Tsai et al: column 3, lines 24-31).

Regarding claims 17 and 33, Fan et al disclose an information processing apparatus (Figure 1, reference 32) connected via a communication cable to a scanner apparatus (Figure 1, reference 40, 34, 32), said scanner apparatus comprising an

image input section that feeds an original and inputs image data by reading an image from the fed original (Fan et al: column 6, lines 33-40), and an image correcting section that executes predetermined image correction on the image data input by said image input section (Fan et al disclose a scanner that scans images at different resolution and settings (column 11, lines 55-60)), said scanner apparatus being capable of transmitting the image data corrected by said image correcting section (Fan et al: column 6, lines 11-20), the information processing apparatus comprising:

first storage means for storing image data transmitted from the scanner apparatus (Fan et al: column 6, lines 11-20; lines 33-36; Figure 1, reference 40, 32, 34);

display means for displaying the corrected image data (Fan et al: column 6, lines 11-21; column 7, lines 64-67; Figure 1, reference 36);

instruction input means for inputting setting information for image correction according to an instruction from an operator (Fan et al: column 6, lines 21-28; Figure 1, reference 38);

second image correcting means for executing image correction that can be executed by the scanner apparatus, on the image data stored in said first storage means based on the setting information input by said instruction input means (Fan et al disclose image processor and scanner which can both effect sizing/scaling for different resolution on image data which reads on image correction based on user setting data (column 11, lines 55-60; column 7, lines 62-65); and

second storage means for storing the image data corrected by said second image correcting means (column 7, lines 64-67). However Fan et al does not disclose first

image correcting means for executing image correction that can be executed by the scanner apparatus, on the image data stored in said first storage means.

Tsai et al disclose first image correcting means for executing image correction that can be executed by the scanner apparatus (column 3, lines 24-31).

Fan et al and Tsai et al are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the image processing system of Tsai et al with the system of Fan et al to implement image processing within the scanner.

The motivation to combine the reference is clear because by processing the image inside the scanner, the work load on the image processing device can be reduced when the image processing apparatus is busy.

Regarding claims 19 and 35, Fan et al disclose an information processing apparatus/method connected via a communication cable to a scanner apparatus (Figure 1, reference 40, 34, 32), said scanner apparatus comprising an image input section that feeds an original and inputs image data by reading an image from the fed original, and an image correcting section that executes predetermined image processing on the image data input by said image input section, the scanner apparatus being capable of transmitting the image data corrected by said image correcting section, the information processing apparatus comprising:

first storage means for storing image data on a first original sheet transmitted from the scanner apparatus (column 6, lines 11-19);

first image correcting means for executing image correction that can be executed by the scanner apparatus, on the image data stored in said first storage means (Fan et al disclose image processor and scanner which can both effect sizing/scaling for different resolution on image data which reads on image correction based on user setting data (column 11, lines 55-60; column 7, lines 62-65))

display means for displaying the corrected image data (Figure 1, reference 36);

instruction input means for inputting setting information for image correction according to an instruction from an operator (column 6, lines 21-28; Figure 1, reference 38);

second storage means for storing the image data corrected by said second image correcting means (Figure 5, reference 72; column 7, lines 60-65);

transmitting means for transmitting the setting information input by said instruction input means, to the scanner apparatus (column 8, lines 1-5; column 9, lines 51-55); and

third storage means for storing image data on second and subsequent original sheets which have been transmitted from the scanner apparatus after being corrected based on the setting information by the image correcting section of the scanner apparatus (column 7, lines 64-67; column 8, lines 5-10). However Fan et al does not disclose second image correcting means for executing image correction that can be executed by the scanner apparatus, on the image data stored in said first storage means based on the setting information input by said instruction input means.

Tsai et al disclose second image correcting means for executing image correction that can be executed by the scanner apparatus (column 4, lines 25-32, lines 59-63).

Fan et al and Tsai et al are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the image processing system of Tsai et al with the system of Fan et al to implement image processing within the scanner.

The motivation to combine the reference is clear because by processing the image inside the scanner, the work load on the image processing device can be reduced when the image processing apparatus is busy.

Regarding claims 20 and 36, Fan et al disclose an information processing apparatus/method connected to an image input apparatus which is capable of executing predetermined image processing on input image data and outputting the processed image data, the information processing apparatus comprising:

storage means for storing image data output from the image input apparatus (column 6, lines 11-19);

instruction input means for inputting setting information for image processing according to an instruction from an operator(column 6, lines 21-28; Figure 1, reference 38); and

image processing means for executing image processing on the image data stored in said storage means based on the setting information input by said instruction input means, if said selecting means selects the second mode (column 7, lines 61-67).

However Fan et al does not disclose selecting means for selecting either a first mode in which the image input apparatus executes image processing or a second mode in which

the image processing apparatus executes image processing, according to an instruction input by an operator.

Tsai et al disclose selecting means for selecting either a first mode in which the image input apparatus executes image processing or a second mode in which the image processing apparatus executes image processing, according to an instruction input by an operator (Tsai et al: column 3, lines 27-32; lines 59-65), according to an instruction input by the operator (The system of Fan et al can be configured to provide user option to select where the image processing can be performed since Tsai et al provides for two modes of image processing.)).

Fan et al and Tsai et al are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the image processing system of Tsai et al with the system of Fan et al to implement image processing within the scanner.

The motivation to combine the reference is clear because by processing the image inside the scanner, the work load on the image processing device can be reduced when the image processing apparatus is busy.

Regarding claims 22, 38, and 44, Fan et al disclose an image input apparatus/method/program connected to an information processing apparatus which is capable of executing predetermined image processing on input image data and storing the processed image data, the image input apparatus comprising:

input means for inputting image data (Figure 1, reference 40; column 6, lines 33-40); and

wherein said image processing means executes image processing on the image data input by said input means, depending on contents of image processing executed by the image processing apparatus (column 6, lines 49-67). However Fan et al does not disclose image processing means for executing image processing that can be executed by the image processing apparatus, on the image data input by said input means.

Tsai et al disclose image processing means for executing image processing that can be executed by the image processing apparatus, on the image data input by said input means (column 3, lines 28-32, lines 59-65).

Fan et al and Tsai et al are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the image processing system of Tsai et al with the system of Fan et al to implement image processing within the scanner.

The motivation to combine the reference is clear because by processing the image inside the scanner, the work load on the image processing device can be reduced when the image processing apparatus is busy.

Regarding claim 23, Fan et al in view of Tsai et al teach all the limitations of claim 22. Further Fan et al disclose an image input apparatus according to claim 22, wherein the information processing apparatus executes image processing on the image data based on setting information input by an operator (Fan et al: column 7, lines 54-

63), and wherein said image processing means executes image processing on the image data input by said input means, based on the setting information transmitted from the image processing apparatus (Fan et al: Figure 1, reference 34; column 8, lines 1-4).

Regarding claim 24, Fan et al in view of Tsai et al teach all the limitations of claim 23. Further Fan et al disclose an image input apparatus according to claim 23, further comprising determining means for determining whether the image data input by said input means is from a first original sheet, and wherein the determining means determines that the image data is from the first original sheet, said image processing means does not execute image processing on the image data input by said input means (Fan et al disclose preview scan which reads on first original sheet as shown in figure 5 (column 3, lines 12-16). Thus preview implies default scanning by the image input means.),

and

if said determining means determines that the image data is not from the first original sheet, said image processing means executes image processing on the image data input by said input means (Fan et al disclose final scan which reads on image data not from the original (column 2, lines 37-44; column 5, lines 32-49)).

Regarding claim 25, Fan et al in view of Tsai et al teach all the limitations of claim 24. Further Fan et al disclose an image input apparatus according to claim 24, wherein the image input apparatus is a scanner apparatus (Figure 1, reference 40;

column 6, lines 33-36), and wherein said input means inputs image data by reading an image (column 6, lines 33-40).

Regarding claim 26, Fan et al in view of Tsai et al teach all the limitations of claim 25. Further Tsai et al disclose an image input apparatus according to claim 25, wherein said image processing means executes image processing related to image correction, and the image processing apparatus executes image correction that can be executed by said image processing means (column 3, lines 29-32, lines 49-65).

Regarding claim 28, Fan et al in view of Tsai et al teach all the limitations of claim 25. Further Fan et al disclose an image input apparatus according to claim 25, wherein said input means inputs image data by reading an image, wherein if said determining means determines that the image data is not from the first original sheet (Fan et al disclose preview scan which reads on first original sheet as shown in figure 5 (column 3, lines 12-16). Fan et al disclose final scan which reads on image data not from the original (column 2, lines 37-44; column 5, lines 32-49)).), said input means inputs image data by continuously reading second and subsequent original sheets, and wherein said image processing means executes image processing on the image data input by said input means (column 5, lines 32-49).

Regarding claim 29, Fan et al in view of Tsai et al teach all the limitations of claim 22. Further Fan et al disclose an image input apparatus according to claim 22, wherein the image input apparatus is a scanner apparatus (Figure 1, reference 40), and

wherein the image processing apparatus is a personal computer connected to the scanner apparatus via a communication cable (Figure 1, reference 32, reference 34; column 6, lines 11-21).

Regarding claims 30 and 39, Fan et al disclose a scanner apparatus connected to an image processing apparatus/method which is capable of executing predetermined image correction on input image data based on setting information input by an operator and storing the corrected image data, the scanner apparatus comprising:

input means for feeding an original and inputting image data by reading an image from the fed original (column 6, lines 33-40);

and

determining means for determining whether the image data input by said input means from a first original sheet, and wherein if said determining means determines that the image data is not from the first original sheet, said image processing means executes image processing on the image data input by said input means, based on the setting information transmitted from the image processing apparatus (Fan et al disclose preview scan which reads on first original sheet as shown in figure 5 (column 3, lines 12-16). Fan et al disclose final scan which reads on image data not from the original (column 2, lines 37-44; column 5, lines 32-49)). (column 8, lines 1-5; column 6, lines 50-65). However Fan et al does not disclose image processing means for executing image correction that can be executed by the image processing apparatus, on the image data input by said input means.

Tsai et al disclose image processing means for executing image correction that can be executed by the image processing apparatus, on the image data input by said input means (column 3, lines 29-32, lines 59-65).

Fan et al and Tsai et al are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the image processing system of Tsai et al with the system of Fan et al to implement image processing within the scanner.

The motivation to combine the reference is clear because by processing the image inside the scanner, the work load on the image processing device can be reduced when the image processing apparatus is busy.

Regarding claims 31 and 40, Fan et al disclose an image input apparatus/method connected to an information processing apparatus which is capable of executing predetermined image processing on input image data and storing the processed image data, the image input apparatus comprising:
input means for inputting image data(column 6, lines 33-40);
image processing means for executing image processing on the image data input by said input means (column 6, lines 57-67). However Fan et al does not disclose apparatus wherein if the image processing apparatus is to execute image processing on the image data input by said input means, said image processing means does not execute image processing on the image data input by said input means.

Tsai et al disclose apparatus wherein if the image processing apparatus is to execute image processing on the image data input by said input means, said image processing means does not execute image processing on the image data input by said input means (column 3, lines 25-32, lines 59-65).

Fan et al and Tsai et al are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the image processing system of Tsai et al with the system of Fan et al to implement image processing within the scanner.

The motivation to combine the reference is clear because by splitting the image processing work between the two devices processing time can be reduced.

Regarding claim 41, Fan et al disclose an image input system including an image input apparatus which is capable of executing predetermined image processing on input image data and outputting the processed image data, and an image processing apparatus connected to the image input apparatus, wherein the image input apparatus comprises:

input means for inputting image data (column 6, lines 33-40);

and first image processing means for executing image processing on the image data input by said input means (column 6, lines 56-67), wherein said information processing apparatus comprises:

storage means for storing image data output from the image input apparatus (column 6, lines 11-20; lines 33-36; Figure 1, reference 40, 32, 34);

instruction input means for inputting setting information for image processing according to an instruction from an operator (column 6, lines 21-28; Figure 1, reference 38); and second image processing means for executing image processing on the image data stored in said storage means based on the setting information input by said instruction input means (column 7, lines 54-67; column 8, lines 1-4), and

wherein said first image processing means executes image processing on the image data input by said input means, depending on contents of image processing executed by said second image processing means (column 6, lines 49-67). However Fan et al does not disclose second image processing means for executing image processing that can be executed by said first image processing means.

Tsai et al disclose second image processing means for executing image processing that can be executed by said first image processing means (column 3, lines 24-31, lines 59-65).

Fan et al and Tsai et al are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the image processing system of Tsai et al with the system of Fan et al to implement image processing within the scanner.

The motivation to combine the reference is clear because by processing the image inside the scanner, the work load on the image processing device can be reduced when the image processing apparatus is busy.

Regarding claim 42, Fan et al disclose an image input system including a scanner apparatus comprising an image input section that feeds an original and inputs image data by reading an image from the fed original, and an image correcting section that executes predetermined image processing on the image data input by said image input section, the scanner apparatus being capable of transmitting the image data corrected by said image correcting section, to an external apparatus, and an image processing apparatus connected to the scanner apparatus via a communication cable, wherein the scanner apparatus comprises (column 6, lines 33-40, Figure 1, reference 32, 34, 40; column 6, lines 57-67):

input means for feeding an original and inputting image data by reading an image from the fed original (column 6, lines 33-40);

first image correcting means for executing image correction on the image data input by said input means (column 6, lines 57-67);

and

determining means for determining whether the image data input by said input means is from a first original sheet(Fan et al disclose preview scan which reads on first original sheet as shown in figure 5 (column 3, lines 12-16).), wherein said information processing apparatus comprises:

first storage means for storing image data transmitted from the scanner apparatus (column 6, lines 11-20; lines 33-36; Figure 1, reference 40, 32, 34);

display means for displaying the corrected image data (Fan et al: column 6, lines 11-21; column 7, lines 64-67; Figure 1, reference 36);

instruction input means for inputting setting information for the image correction according to an instruction from an operator (column 6, lines 21-28; Figure 1, reference 38);

third image correcting means for executing image correction on the image data stored in said first storage means based on the setting information input by said instruction input means (column 7, lines 54-62); and

second storage means for storing the image data corrected by said third image correcting means (column 7, lines 54-67), and wherein if said determining means determines that the image data is not from a first original sheet, said first image correcting means executes image correction on the image data input by said input means (Fan et al disclose final scan which reads on image data not from the original (column 2, lines 37-44; column 5, lines 32-49)).), based on the setting information transmitted from the information processing apparatus (Fan et al: column 8, lines 1-5; column 9, lines 51-55). However Fan et al does not disclose third image correcting means for executing image correction that can be executed by said first image correcting means and second image correcting means for executing image correction that can executed by said first image correcting means.

Tsai et al disclose image correction that can be executed by both the image input device and image processing device (column 3, lines 28-33, lines 59-65).

Fan et al and Tsai et al are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the image processing system of Tsai et al with the system of Fan et al to implement image processing within the scanner.

The motivation to combine the reference is clear because by processing the image inside the scanner, the work load on the image processing device can be reduced when the image processing apparatus is busy.

8. Claims 4 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6757081 to Fan et al in view of U.S. Patent No. 6327056 to Tsai et al further in view of U.S. Patent No. 6665096 to Oh.

Regarding claims 4 and 27, Fan et al in view of Tsai et al teach all the limitations of claims 3 and 26 respectively. However Fan et al in view of Tsai et al does not disclose an information processing apparatus according to claim 3, wherein the image correction includes processes related to contrast adjustment, brightness adjustment, and binarization of an image.

Oh disclose an information processing apparatus according to claim 3, wherein the image correction includes processes related to contrast adjustment, brightness adjustment, and binarization of an image (column 12, lines 1-10; column 3, lines 29-43).

Fan et al, Tsai et al, and Oh are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the image correction of Oh with the system of Fan et al in view

of Tsai et al to implement brightness, contrast, and binarization correction of scanned images.

The motivation to combine the reference is clear because an operator of the scanning device has option to adjust quality of the scanned image according to the preference of the operator so as to produce the high quality image (column 3, lines 20-28).

9. Claim 9, 18, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6757081 to Fan et al in view of U.S. Patent No. 6327056 to Tsai et al further in view of U.S. Patent No. 6600548 to Enomoto.

Regarding claim 9, Fan et al in view of Tsai et al teach all the limitations of claim 1. However Fan et al in view of Tsai et al does not disclose an information processing apparatus according to claim 1, further comprising third storage means for storing setting information input by said instruction input means, and wherein said image processing means executes image processing on second and subsequent image data output from the image input apparatus based on the setting information stored in said third storage means.

Enomoto disclose an information processing apparatus according to claim 1, further comprising third storage means for storing setting information input by said instruction input means (Figure 4, reference 60, 60a; column 13, lines 12-25), and wherein said image processing means executes image processing on second and subsequent image data output from the image input apparatus based on the setting information stored in said third storage means (column 25, lines 24-36).

Fan et al, Tsai et al, and Enomoto are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the storing of setting data and processing of Enomoto with the system of Fan et al in view of Tsai et al to implement setting that can be stored and used for processing subsequent images.

The motivation to combine the reference is clear because processing time can be reduced by storing the setting and using it for subsequent image processing for similar images as taught by Enomoto (column 25, lines 24-36).

Regarding claims 18 and 34, Fan et al disclose an information processing apparatus/method (Figure 1, reference 32) connected via a communication cable to a scanner apparatus(Figure 1, reference 40, 34, 32), said scanner apparatus comprising an image input section that feeds an original and inputs image data by reading an image from the fed original(Fan et al: column 6, lines 33-40), and an image correcting section that executes predetermined image processing on the image data input by said image input section(Fan et al disclose a scanner that scans images at different resolution and settings (column 11, lines 55-60)), the scanner apparatus being capable of transmitting the image data corrected by said image correcting section(Fan et al: column 6, lines 11-20), the information processing apparatus comprising:
first storage means for storing image data on a first original sheet transmitted from the scanner apparatus (Fan et al: column 6, lines 11-20; lines 33-36; Figure 1, reference 40, 32, 34);

instruction input means for inputting setting information for image correction according to an instruction from an operator(column 6, lines 21-28; Figure 1, reference 38) ;

second image correcting means for executing image correction that can be executed by the scanner apparatus, on the image data stored in said first storage means based on the setting information input by said instruction input means(Fan et al disclose image processor and scanner which can both effect sizing/scaling for different resolution on image data which reads on image correction based on user setting data (column 11, lines 55-60; column 7, lines 62-65);

second storage means for storing the image data corrected by said second image correcting means (column 7, lines 64-67);

display means for displaying the corrected image data (Fan et al: column 6, lines 11-21; column 7, lines 64-67; Figure 1, reference 36).

fourth storage means for storing image data on second and subsequent original sheets transmitted from the scanner apparatus, in response to storing of the image data on the first original sheet in said second storage means (column 5, lines 32-45; Subsequent implies after the first original.), and fifth storage means for storing the image data corrected by said third image correcting means (column 7, lines 54-67). However Fan et al does not disclose

a) first image correcting means for executing image correction that can be executed by the scanner apparatus,

b) third storage means for storing the setting information input by said instruction input means;

c) third image correcting means for executing image correction that can be executed by the scanner apparatus, on the image data stored in said fourth storage means based on the setting information stored in said third storage means.

Tsai et al disclose image correcting means, which can be applied to first and third image correcting means, for executing image correction that can be executed by the scanner apparatus (column 3, lines 24-31).

Enomoto discloses third storage means for storing the setting information input by said instruction input means (column 13, lines 12-25) and correcting means for executing image correction, on the image data stored in said fourth storage means based on the setting information stored in said third storage means (column 25, lines 24-36).

Fan et al, Tsai et al, and Enomoto are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the image correction of Tsai et al and storing of setting information and correction of Enomoto et al with the system of Fan et al to implement image processing with storing of setting data.

The motivation to combine the reference is clear because by storing of setting data as taught by Enomoto subsequent processing can be accomplished faster and efficiently for similar images (column 25, lines 24-36) and the work load of the image processing device can be reduced by implementing the method of Tsai et al.

Other Prior Art Cited

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6665098 to Nagarajan disclose digital scanner.

U.S. Patent No. 5901276 to Murahashi et al disclose network of scanners.

U.S. Patent No. 6542260 to Gann et al disclose scanners producing multiple images.

U.S. Patent No. 5499108 to Cotte et al disclose scanner connected with a computer.

U.S. Patent No. 6668096 to Yamamoto disclose verification for images.

U.S. Patent No. 6771395 to Kito disclose image reader.

U.S. Patent No. 6683705 to Yamaguchi disclose imaging apparatus.

U.S. Patent No. 6323934 to Enomoto discloses imaging processor.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beniyam Menberu whose telephone number is (571) 272-7465. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (571) 272-7471. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600. The group receptionist number for TC 2600 is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

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05/15/2005

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